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RWANDA HUMAN RESOURCES ASSESSMENT FOR HIV/AIDS SERVICES SCALE-UP

PHASE I REPORT: NATIONAL HUMAN RESOURCES ASSESSMENT

QUALITY ASSURANCE PROJECT

OPERATIONS RESEARCH RESULTS

OCTOBER 2005

This publication was produced for review by the United States Agency for International Development and the Government of Rwanda Ministry of Health. It was prepared by Initiatives Inc. for the Quality Assurance Project.

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Phase 1 Report: National Human Resources Assessment

October 2005

Rebecca Furth, MA
Robert Gass, MA, MPH
Jean Kagubare, MD, MP

The Quality Assurance Project (QAP) is funded by the U.S. Agency for International Development (USAID) under Contract Number GPH-C-00-02-00004-00. The project serves developing countries eligible for USAID assistance, USAID Missions and Bureaus, and other agencies and nongovernmental organizations that cooperate with USAID. QAP offers technical assistance in the management of quality assurance and workforce development in healthcare, helping develop feasible, affordable approaches to comprehensive change in health service delivery. The project includes prime contractor University Research Co., LLC (URC), Initiatives Inc., and Joint Commission Resources, Inc. This operations research study was carried out by a team from Initiatives Inc.

Recommended citation: Furth, R., Gass, R., and Kagubare, J. Quality Assurance Project (QAP). 2005. Rwanda Human Resources Assessment for HIV/AIDS Scale-up. Phase 1 Report: National Human Resources Assessment. *Operations Research Results*. Published for the U.S. Agency for International Development by QAP.

Acknowledgements

The Rwanda Human Resources Assessment for HIV/AIDS Services Scale-Up was commissioned by the Directorate of Health Care (DSS) of the Rwandan Ministry of Health and the U.S. Agency for International Development (USAID). It was conducted by Initiatives Inc. through the Quality Assurance Project (QAP) with funding from the President's Emergency Fund for AIDS Relief. Work was conducted in close collaboration with the Rwandan Ministry of Health (MOH), including the office of the Secretary of State for HIV/AIDS, the Treatment and Research AIDS Center (TRAC), DSS, the Directorate of Health Planning, the Directorate of Human Resources and Support Services, and the National AIDS Control Commission.

Numerous individuals and organizations contributed information and insight to the study. Dr. Claude Sekabaraga, Director, and Dr. Bonaventure Nziyamana, Quality Assurance Coordinator, of the DSS requested the study and provided invaluable assistance in its implementation. Dr. Nancy Fitch, USAID HIV/AIDS Technical Advisor, and Dr. Ruben Sahabo, USAID Cognizant Technical Officer, also offered continual support for the study. The study also could not have been carried out without the support of Dr. Eliphaz Ben Karenzi, MOH Secretary General; Dr. Innocent Nyaruhirira, Secretary of State for HIV/AIDS; and Dr. Kathy Kantengwa, Chief Policy Advisor for HIV/AIDS. Dr. Louis Munyakazi, Director of TRAC, made his staff available for data collection and met with team members on numerous occasions to discuss the study. Dr. Jean-Claude Karasi, Dr. Anita Asiimwe, and Elévanie Nyakensha of TRAC also discussed HIV/AIDS services and made protocols, training materials, and surveillance documents available. The team would also like to thank Dr. Vianney Nizeyimana, Director, and Dr. Emilian Nkusi, Health Management Information Head, of the Directorate of Health Planning, and Dr. Emmanuel Kabanda, Director, Directorate of Human Resources and Support Services.

For providing assistance and sharing information with the study team, thanks are also due to Mary Murebwayire, MOH Chief Nursing Officer; Dr. Thomas Karengera, Project Coordinator, Multi-country AIDS Program; Dr. Blaise Karibushi, Coordinator of VCT Integré (VCTI); Barnabé Sebagabo, National Coordinator, Civil Service Health Reform Project; Dr. Apolline Uwayitu, Deputy Medical Director, Central Hospital of Kigali; Valerie Koscelnic, Chief of Party, Centers for Disease Control and Prevention (CDC) Rwanda; Thomas Scialfa, Monitoring and Evaluation (M&E) Officer of CDC-Rwanda; Pierre Rugimbanya, Senior Laboratory Quality Assurance Officer, National Reference Laboratory; Dr. Jessica Price, Country Director, IMPACT Project; Dr. Martin Ngabonziza, Senior Technical Advisor, Project IMPACT; Karen Blyth, Rwanda Country Director, and Gerard Ngendahimana, Technical Advisor, IntraHealth; Laurie Manderino, Rwanda Country Representative, Elizabeth Glaser Pediatric AIDS Foundation; Elizabeth Collins, Rwanda Country Director, Clinton HIV/AIDS Initiative; Chevanne Peercy, TRAC Administrative Coordinator; Dr. Christine Omes, Principal Technical Advisor, Lux Development/Ensemble pour une Solidarité Thérapeutique Hospitalière en Réseau (ESTHER); Cecile Ndoli, UNICEF PMTCT Project Officer; Dr. Bucagu Maurice and Dr. Basinga Paulin, Rwanda School of Public Health; Mr. Kabandana Innocent, Director, Gitwe School of Higher Education; Dr.Justin Wane, Vice-Dean of Post-Graduate Studies, National University of Rwanda, Faculty of Medicine; Pierre Rugimbanya, Senior Laboratory Quality Assurance Officer, National Reference Laboratory; Sister Josephine Mukamunana, Director, Rwamagana School of Nursing; and Dr. Bosco Prince, Caritas Health Department Head.

The QAP country office provided administrative and logistics support for the study. Many thanks are due to Dr. Rachel Jean-Baptiste, then-QAP Country Director for Rwanda, for her support and assistance.

The authors also gratefully acknowledge the data collection team who put in long hours and hard work over four weeks in November and December 2004. Christophe Karuranga served as a team leader for the data collection process: his experience as a TRAC trainer and knowledge of Rwandan HIV/AIDS protocols was invaluable, and his dedication and high standards provided a model for all to follow. Vestine Mukandutiye and Jeanne d'Arc Hajabashi served as data collectors on the study team. César

Kisangani and Doris Mukandori of the TRAC M&E Department were valued partners and provided significant assistance in the data collection process. Olivier Muvuzankwaya also provided assistance in database development, and Rajesh Kasturirangan offered invaluable technical support for data analysis.

Dr. Joyce Lyons and Jennifer Huddart of Initiatives Inc. were the architects of the study methodology, offered technical assistance to the study team, and provided invaluable technical reviews of study reports.

Rebecca Furth, MA
Robert Gass, MA, MPH
Jean Kagubare, MD, MPH
Kigali, Rwanda
June 2005

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This report presents findings from Phase 1 of an assessment of the human resources implications of HIV/AIDS services scale-up in Rwanda. Phase 1 of the study sought to document the number and type of staff currently employed at public and private sites in Rwanda, estimate those currently providing HIV/AIDS services, and identify employment practices that could facilitate or hinder human resources scale-up for HIV/AIDS service delivery. To estimate the number of health workers providing health services and the employment mechanisms through which they are contracted, the research team gleaned data from Ministry of Health reports.

The study found that out of Rwanda's 4,889 active health service providers, 4.2% are doctors, 52.2% are nurses, and 23.5% are nurse aides or other auxiliary staff. Hospitals absorb 44% of the health workforce, and half of the country's doctors are posted at the three national referral hospitals. The Ministry of Health employs 43% of the health workforce through the civil service. The largest share (55%) of the workforce is employed through contracts with a health facility (38%) or through NGOs, donor organizations, or district contracts (17%). Salaries for staff contracted by health facilities are usually paid from funds accumulated from user fees and occasionally from contracts the facilities have with a supporting institution. Reliance on user fees constrains the ability of health centers, especially those in rural areas, to meet their staffing needs.

The study also found that most staff providing HIV/AIDS services are paid by the civil service or through contracts at *agrée* facilities (public facilities managed by religious institutions). Donor agency-supported salaries for HIV/AIDS service providers tend to be substantially higher than those offered by the civil service or *agrée* institutions, although the government discourages salary disparities. The widespread practice of contracting staff may facilitate adding staff to scale up HIV/AIDS services.

ABBREVIATIONS

CCM	Country Coordinating Mechanism (Global Fund)
CDC	Centers for Disease Control and Prevention (United States)
DSS	Directorate of Health Care
ESTHER	*Ensemble de Solidarité Thérapeutique Hospitalière en Réseau* (Lux Development)
FOSA	*Formation Sanitaire* (health facility)
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IMPACT	Implementing AIDS Prevention and Care (Family Health International)
M&E	Monitoring and evaluation
MOH	Ministry of Health
NGO	Nongovernmental organization
PMTCT	Prevention of mother-to-child transmission
QAP	Quality Assurance Project
TRAC	Treatment and Research AIDS Center
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
VCTI	Integrated services for VCT, PMTCT, and treatment of opportunistic infections
WHO	World Health Organization

I. INTRODUCTION

This report presents findings from Phase 1 of an assessment of the human resources implications of HIV/AIDS services scale-up in Rwanda. The purpose of the assessment (the "Rwandan Human Resources Assessment for HIV/AIDS Services Scale-Up") was to gain a better understanding of what types and numbers of healthcare staff (e.g., doctors, nurses, pharmacists) will be needed for the Government of Rwanda to meet its Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) service delivery objectives—and at what cost. This report is the first of three from the three-phase assessment. It documents the staff currently employed at public and *agrée*[1] sites in Rwanda. The second report identifies categories of staff being used to provide HIV/AIDS services; what services they provide; their motivation, employment, and financial support; and how long it takes them to provide selected services. It also assesses national capacity for training HIV/AIDS service providers. The third report uses findings from the first two to estimate how many staff will be needed to meet different scenarios related to national care and treatment objectives.

The Government of Rwanda aims to rapidly scale up ART services to 100,000 clients by 2007 (TRAC 2004). Doing so will require not only an adequate number of staff—and appropriate types of staff (or "cadres")—to provide care and treatment, but also staff to provide voluntary counseling and testing (VCT) and prevention of mother-to-child transmission of HIV (PMTCT) services. These last two types of services are essential because they serve as "gateways" to HIV/AIDS care and treatment. That is, people gain access to care/treatment services by using VCT and PMTCT services.

The objectives of the assessment's first phase were to:

- Quantify the number and type of health workers currently providing services in Rwanda by examining payroll records and other staffing documentation from the Rwandan civil service and *agrée* sites,
- Estimate the number and type of health workers providing HIV/AIDS services, and
- Describe employment policies and practices that will facilitate or hinder human resources scale-up for HIV/AIDS service delivery.

II. METHODOLOGY

While governments often track staffing through payroll records, limiting data collection to such records was not possible for this study. Many health workers in Rwanda are contracted directly by health facilities or are employed by *agrée* support agencies. Employees contracted by health facilities are paid from user-fee revenues collected by health centers from clients. These contract employees are not included in the national payroll records.

[1] *Agrée* sites are public sector health facilities that are managed by a religious institution, most often the Catholic Church. Employees at *agrée* sites may be civil service employees or may be paid by the health facility or *agrée* support institution.

To estimate the number of health workers providing health services, the research team focused on staff providing services at public and *agrée* health facilities because these facilities employ or contract most of the health workforce and data were largely documented. The team collected staffing data from annual reports submitted by health centers to the Ministry of Health (MOH) Directorate of Planning. Data from all 2003 reports were entered into an Excel database. Of Rwanda's 402 health sites, only 142 had submitted reports for 2003, so reports from 2002 were included in the data collection to capture an additional 165. Data for most of the remaining sites were gathered from a survey conducted by the Directorate of Planning for the year 2003. That left 14 sites, all health centers, for which staffing was undocumented. The research team estimated the staff of these 14 on the basis of the average staffing levels at the 352 represented health centers.

Information on payment sources was also available from most annual reports, with the exception of referral hospitals which do not submit information on how employees are paid. Payment sources in Rwanda include the civil service, health facilities (a facility contracts with a provider and pays him or her using revenues collected from clients in the form of user fees), and supporting institutions (outside nongovernmental organizations (NGOs), *agrée* support agencies, or donor agencies that provide funds to a facility to be used to pay providers for hours worked).

Information on staff training was collected from the Treatment and Research AIDS Center (TRAC) and documentation from different supporting institutions. Training reports and interviews served as the sources for these data. They were complemented by the HIV/AIDS training assessment conducted in Phase 2 of the assessment and presented in the Phase 2 report.

III. STAFFING AT PUBLIC AND *AGRÉE* HEALTH FACILITIES

A. Numbers and Types of Staff

Rwanda has about 366 health centers, 33 district hospitals, and 5 referral hospitals. Data on numbers and cadres of staff were available on all except two referral sites. Table 1 presents these data by cadre and facility type and shows an estimated total of 4,889 active service providers. Nurses (2,617) and auxiliary staff (1,148) represent 78% of the workforce at health centers.

B. Staff Education and Skills

In the Rwandan health system, healthcare providers are classified according to their level of training and experience. For example, at present A3 nurses may have limited or no secondary education and minimal health training. They work primarily as aides and assistants. A2 nurses, who make up the bulk of the health workforce, have two years of secondary education and two of nursing training. A1 nurses are the most highly trained, having completed high school and taken two additional years of nursing training.

Table 1: Number of Active Health Providers Nationwide

	Health Centers (n= 366)	District Hospitals (n = 33)	Referral Hospitals (n = 3)	All Health Centers and Hospitals (n = 402)	Percentage of Total
Doctors	6	98	100	204	4.2
Medical assistants[2]	53	6	4	63	1.3
Nurses A1 and A2	1168	672	474	2314	47.3
Nurses A3	135	66	39	240	4.9
Other doctors and nurses	11	3	27	41	0.8
Nutritionists A1	9	8	2	19	0.4
Nutritionists A2	34	14	2	50	1.0
Nutritionists A3	16	4	1	21	0.4
Social workers A1	7	1	2	10	0.2
Social workers A2	130	53	22	205	4.2
Social workers A3	40	3	0	43	0.9
Sanitation technicians	3	3	1	7	0.1
Others	67	27	13	107	2.2
Lab technicians A1	1	7	8	16	0.3
Lab technicians A2	85	48	29	162	3.3
Lab technician A3	47	9	1	57	1.2
Other technicians	77	37	68	182	3.7
Auxiliary staff and nurse aides	833	281	34	1148	23.5
Total providers	**2720**	**1340**	**827**	**4889**	**100**

Table 2 shows the distribution of various cadres across the three types of facilities. As in many countries, the preponderance of doctors is concentrated in hospitals (97%): 49% of doctors are posted at the three referral hospitals. Social workers, medical assistants, nutritionists (especially lower-level ones), lab technicians, and auxiliary staff are concentrated in health centers, while hospitals have higher-level staff and more clinical staff. This table also shows that 44% of the health workforce is concentrated in district and referral hospitals. Of course, having more staff and more clinically trained staff at hospitals makes sense, but whether the proportions adequately relate to service usage, workload, patient waiting times, and timeliness of treatment should be examined. Furthermore, the addition of VCT, PMTCT, and care and treatment services to health centers and hospitals will warrant a reevaluation of staffing requirements at these facilities.

[2] Health center records documented medical assistants more clearly than hospital records. In the latter, the numbers of doctors and medical assistants were combined, so the numbers of medical assistants for the country and at hospitals may be slightly higher than represented here.

Table 2: Percentage of Staff by Cadre and Type of Facility

	Health Centers (n = 366)	District Hospitals (n = 33)	Referral Hospitals (n = 3)
Doctors	3%	48%	49%
Medical assistants	84%	10%	6%
Nurses A1 and A2	50%	29%	21%
Nurses A3	56%	28%	16%
Other doctors and nurses	27%	7%	66%
Nutritionists A1	47%	42%	11%
Nutritionists A2	68%	28%	4%
Nutritionists A3	76%	19%	5%
Social workers A1	70%	10%	20%
Social workers A2	63%	26%	11%
Social workers A3	93%	7%	0%
Sanitation technicians	43%	43%	14%
Others	63%	25%	12%
Lab technicians A1	6%	44%	50%
Lab technicians A2	52%	30%	18%
Lab technicians A3	82%	16%	2%
Other technicians	42%	20%	37%
Auxiliary staff and nurse aides	73%	24%	3%
Total staff	**56%**	**27%**	**17%**

C. Employment Practices

Hiring and contracting practices will influence how rapidly additional staff can be hired to provide HIV/AIDS services. Rwanda's health sector has a varied employment structure; health workers can be employed by the civil service; through contracts with health centers in which they are paid with revenue from user fees; or through contracts with NGOs, churches, districts, or other agencies. This system provides flexibility and may enable health centers to hire additional staff more quickly than if they had to make all requests through the civil service.

Civil service employment: The MOH employs approximately 43% of the health workforce stationed at health facilities (Table 3). These workers' salaries are paid directly by the central government and are not distributed through the district health offices.

Contract employment: The largest share (55%) of the workforce is employed through contracts with a health facility (38%) or through NGOs, donor organizations, or district contracts (17%). Salaries for staff contracted by health facilities are usually paid from funds accumulated from user fees and occasionally from contracts the facilities have with a supporting institution.

Sites, provider skill level, and employment mechanism: The more qualified a staff member and the higher the level of his or her service site, the more likely he or she is employed through the civil service. For example, Table 5 shows that 67% of A1/A2 nurses at hospitals are employed by the civil service, while Table 6 shows that only 59% of the same category of nurses at health centers are civil service employees (these percentages are based on samples of hospitals and health centers). Similarly, auxiliary staff and aides are among the lowest qualified staff, yet they comprise a substantial portion—31%—of health providers at health centers (Table 6: of 2426 health center staff, 750 are auxiliary staff). Table 4 shows that, as a lower ranking cadre, most auxiliary staff—86%—is employed through contracts. The employment of laboratory staff follows the same pattern: the lower the category of lab technician, the more likely he or she is employed through a contract.

Table 3: Percentage of Staff by Employment Mechanism[3]

Employment Mechanism	Percentage
Civil service	43%
Contracts: - Contracts with the health facility (38%) - Contracts with an NGO, voluntary organization, or the district (17%)	55%

Table 4: Staffing at Selected Facilities by Cadre and Employment Mechanism

Health centers and district hospitals (n = 328)	Number of Staff	Civil Service	Contract by FOSA	Contract by Other	Unknown
Doctors	79	49%	22%	24%	5%
Medical assistants	45	80%	13%	4%	2%
Nurses A1 and A2	1427	61%	29%	7%	3%
Nurses A3	144	53%	31%	13%	3%
Other doctors and nurses	12	25%	33%	25%	17%
Nutritionists A1	11	73%	18%	0%	9%
Nutritionists A2	39	87%	10%	3%	0%
Nutritionists A3	20	40%	40%	20%	0%
Social workers A1	8	38%	63%	0%	0%
Social workers A2	149	64%	32%	3%	1%
Social workers A3	41	78%	22%	0%	0%
Sanitation technicians	6	67%	33%	0%	0%
Others	72	18%	47%	35%	0%
Lab technicians A1	6	50%	17%	33%	0%
Lab technicians A2	109	40%	53%	4%	3%
Lab technicians A3	51	10%	78%	12%	0%
Other technicians	101	10%	72%	17%	1%
Auxiliary staff/nurse aides	942	12%	48%	38%	2%
Total staff	**3262**	**43%**	**38%**	**17%**	**2%**

Note: FOSA = *formation sanitaire* or health facility.

[3] This represents 98% of the health providers listed in annual reports from the selected health centers and district hospitals for which employment data were available. For the remaining 2%, the payment sources could not be determined. Referral hospital records did not provide employment information. However, the data do suggest that a higher percentage of staff at referral and district hospitals are civil service employees, so the percentage of civil service employees may be slightly higher than represented here.

Table 5: Staffing at Sample District Hospitals by Cadre and Employment Mechanism

District Hospitals (n=21)	Number of Staff	Civil Service	Contract by Health Facility	Contract by Other	Unknown
Doctors	73	52%	19%	25%	4%
Medical assistants	0	ND	ND	ND	ND
Nurses A1 and A2	405	67%	19%	7%	7%
Nurses A3	28	64%	25%	0%	11%
Other doctors and nurses	2	0%	0%	100%	0%
Nutritionists A1	3	100%	0%	0%	0%
Nutritionists A2	9	89%	11%	0%	0%
Nutritionists A3	4	100%	0%	0%	0%
Social workers A1	1	100%	0%	0%	0%
Social workers A2	31	48%	48%	3%	0%
Social workers A3	3	100%	0%	0%	0%
Sanitation technicians	3	67%	33%	0%	0%
Others	13	38%	54%	8%	0%
Lab technicians A1	5	40%	20%	40%	0%
Lab technicians A2	30	50%	47%	3%	0%
Lab technicians A3	6	0%	83%	17%	0%
Other technicians	28	14%	64%	21%	0%
Auxiliary staff/nurse aides	192	14%	58%	28%	0%
Total district hospital staff	**836**	**49%**	**32%**	**14%**	**4%**

Table 6: Staffing at Sample Health Centers by Cadre and Employment Mechanism

Health Centers (n = 307)	Number of Staff	Civil Service	Contract by FOSA	Contract by Other	Unknown
Doctors	6	17%	50%	17%	17%
Medical assistants	45	80%	13%	4%	2%
Nurses A1 and A2	1022	59%	33%	7%	1%
Nurses A3	116	50%	32%	16%	2%
Other doctors and nurses	10	30%	40%	10%	20%
Nutritionists A1	8	63%	25%	0%	13%
Nutritionists A2	30	87%	10%	3%	0%
Nutritionists A3	16	25%	50%	25%	0%
Social workers A1	7	29%	71%	0%	0%
Social workers A2	118	69%	27%	3%	2%
Social workers A3	38	76%	24%	0%	0%
Sanitation technicians	3	67%	33%	0%	0%
Others	59	14%	46%	4%	0%
Lab technicians A1	1	ND	ND	ND	ND
Lab technicians A2	79	27%	56%	4%	4%
Lab technicians A3	45	11%	78%	11%	0%
Other technicians	73	8%	75%	15%	1%
Auxiliary staff/nurse aides	750	11%	45%	41%	2%
Total health center staff	**2426**	**41%**	**39%**	**19%**	**2%**

Note: ND = no data available.

Tables 4, 5 and 6 show the distribution of civil service and contractual employees at district hospitals and health centers. As previously noted, the civil service employs approximately 43% of the health workforce, while 55% of health workers are employed through contractual arrangements with health facilities or private institutions (such as NGOs, faith-based organizations, and private voluntary organizations). Yet the mechanism through which staff are employed also varies by the type of facility at which they are stationed. Tables 5 and 6 show that whereas 49% of staff at hospitals are employed by the civil service, only 41% of staff at health centers are civil service workers. Likewise the data show that health centers employ a greater percentage of staff (39%) through contracts funded with facility resources than do hospitals (32%) and that the majority of contractual staff at hospitals are auxiliary staff or low-level technicians.

While the payment source may not be significant in and of itself, it does suggest that rural health centers will be less likely to have staff supported through the civil service and will have to arrange contractual mechanisms for supporting staff. For health centers that rely on user fees, this is particularly difficult since they generate the least revenue through user fees and have some of the greatest staffing needs. Furthermore, as the civil service raises salaries, some health facilities are finding it increasingly difficult to match its pay scale. As a result, health centers will either experience salary disparities among their staff, which could lead to disputes and an erosion of the motivation of lesser-paid staff, or they will have to cut back on the number of staff they hire.

IV. HUMAN RESOURCE COSTS

Clearly, the cost of providing HIV/AIDS care and treatment services will influence the government's ability to afford to do so. Much attention has been paid to the cost of commodities (antiretrovirals, test kits, and testing technologies), while human resource costs have received comparatively little attention. However, to increase and sustain HIV services, human resources costs must be taken into account. Table 7 shows average salaries in Rwanda by cadre of health worker in various employment situations.

The Government of Rwanda increased payment to civil service workers in July 2004 by adding a "prime" (bonus) to their base salaries. It is expected that this prime will be converted to a salary increase, although the government has not indicated when this will occur. Column 1 in Table 7 gives the current average take-home pay of selected cadres of civil service health workers.

Column 2 data were collected in the same month (July 2004) the government instituted the primes for civil service workers, so they may no longer accurately represent the average salary of workers employed by health facilities, as some *agrée* institutions have increased worker pay to match the government salaries. However, the study team found that many contract workers were still receiving these salaries.

All staff: Until July 2004, average salaries for health providers in *agrée* institutions were slightly higher than those for the civil service, particularly among doctors and nurses. Since the government began applying the prime, civil service salaries have surpassed those of staff paid through user fees, and *agrée* institutions have had to match government salaries. To provide better pay, including bonuses, *agrée* facilities often charge more for services and commodities than public health centers. Large *agrée* institutions (like the hospital example in Table 7, Column 4) can still meet or exceed civil service salaries, but many smaller facilities cannot match current civil service pay.

Table 7: Salaries by Cadre in Various Employment Situations (Rwandan Francs)

	1	2	3	4	5	6
Cadre	Average Civil Service Net Salary, Including Bonus	Average Contract Employee Salary Paid through FOSA User Fees	Average Salary Paid by HIV/AIDS Donor Agencies	Sample *Agrée* Hospital Salary Raised to Match Prime	Average Salary at Sample Private Hospital	Average Salary at Sample NGO Site
Doctors	138,000	66,875	225,000	235,500	883,000	
Nurses/social workers A1	74,000	ND	65,000[A]	87,500	134,000	
Nurses A2	47,500	25,000		58,500		
Social workers A2	47,500	23,000	61,000	58,500	ND	
Lab technicians A2	47,500	24,000	76,000	ND	159,000	
Nurses A3	37,500			35,500		
Auxiliary staff	23,000	14,000	ND	23,220	ND	
Nurse aides and other assistants		14,000	ND		ND	
Others (lay counselors)						120,000

Notes: Column 1 data were collected from the civil service payroll record for November 2004. All figures are in Rwandan francs. [A] Includes nurses who would fulfill the categories of A2 and A1 in the civil services system.

ND = No data available.

HIV/AIDS service providers: Most staff providing HIV/AIDS services are paid by the civil service or through contracts at *agrée* facilities, although several supporting agencies are also providing salary support for additional staff. Donor agency-supported salaries tend to be substantially higher than those offered by the civil service or *agrée* institutions. For example, the Global Fund to Fight AIDS, Tuberculosis and Malaria funds two counselors at each of the sites it supports. Their salaries equal 80,000 Rwandan francs, more than triple the average salary for A2 nurses contracted by health facilities and almost double that currently paid to A2 nurses employed by the civil service. To avoid creating disputes among health workers over salary differences, VCT *Integré* (VCTI, a Global Fund initiative integrating services for VCT, PMTCT, and sexually transmitted and opportunistic infections) is instructing the health facilities it supports to pay contract employees according to the government salary scale and to use the remaining funds to provide bonuses to health workers. Other institutions are providing salaries for additional workers either through contracts directly with health facilities or through direct payment to the personnel. In general, these salaries are higher than those paid by the civil service or to *agrée* health center staff. The Phase 2 report provides additional detail on salaries and other benefits, particularly for HIV/AIDS service providers.

V. HIV/AIDS STAFFING AND TRAINING

To facilitate better planning for future training and staffing investments, the assessment team sought to document current HIV/AIDS staffing. The team surveyed supporting institutions and donor agencies to

gather information on the numbers and types of staff trained to and providing HIV/AIDS services. Unfortunately, many supporting agencies did not have records detailing this information, so an effort was made in the second phase of the study to assess a sample of facilities from which nationwide estimates of the numbers and types of HIV/AIDS service providers could be extrapolated (Furth, Gass, and Kagubare forthcoming).

The government's intent is to integrate HIV/AIDS services, meaning that HIV/AIDS service provision would be routinely offered by a wide range of cadres as part of a comprehensive package of care. Under this model, large numbers of technical staff, and in some cases all technical staff, at a service site are trained to provide HIV/AIDS services. The practice of training all staff in HIV/AIDS service provision is especially rigorous at health centers providing VCT, PMTCT and opportunistic infection/sexually transmitted infection care. The assessment team learned that:

- In the sites where UNICEF supports PMTCT, it trains all staff involved in antenatal care, maternity, nutrition, and laboratory.
- Likewise, VCTI seeks to train all technical staff at health centers in VCT, PMTCT, and management of opportunistic infections and sexually transmitted infections.
- At ESTHER sites (Central Hospital of Kigali and Rwamagana Hospital), a selection of nurses was initially trained to provide VCT and antiretroviral treatment, but with the rotation of staff to other wards, a new set of staff had to be trained. The program is preparing to train all staff so that regular ward rotations will not inhibit HIV/AIDS service provision.
- Other programs, such as IMPACT, provide training support for a selection of staff at a site. These staff are chosen for training by the service sites and are expected take responsibility for HIV/AIDS services.

Assessing HIV/AIDS staff is difficult due to the lack of data on training and service provision at the central level. The team found that many supporting institutions provide funds for training but do not keep records on numbers trained. TRAC keeps records of staff trained at the central level, but has no compiled database of staff trained and does not have a system for documenting staff trained at the district level. In addition, no records are kept on the number of staff who actually provide services or on attrition of HIV/AIDS staff.

VI. REMARKS

The data in this report are preliminary and intended to be complemented by data in the Phase 2 report. Nonetheless, they highlight important issues:

- The civil service supports less than half Rwanda's health workforce.
- Existing mechanisms for the contracting of staff at government and *agrée* facilities may facilitate staff recruitment and provide flexibility for expanding and sustaining the health workforce.
- Careful consideration should be given to salaries paid under contracts. Salary disparities between civil service and contract workers providing services at public or *agrée* sites are discouraged by the government and are a source of frustration for health facility managers and staff.
- A large and relatively inexpensive cadre—auxiliary staff—may provide a means for cost-effective VCT and PMTCT services scale-up.
- Laboratory technicians are in short supply: trained nurses and aides are engaging in laboratory activities at most health centers and provide vital support at hospitals.
- There are no mechanisms for tracking the training of HIV/AIDS staff, staff use, and staff attrition.

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QUALITY ASSURANCE PROJECT
University Research Co., LLC
7200 Wisconsin Avenue, Suite 600
Bethesda, MD 20814

Tel: (301) 654-8338
Fax: (301) 941-8427
www.qaproject.org